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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,348	11/25/2003	Kunihito Takeuchi	Q78468	3900
23373	7590	01/24/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			COHEN, AMY R	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,348

Applicant(s)

TAKEUCHI ET AL.

Examiner

Amy R Cohen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoshino et al. (U. S. Patent No. 6,049,761).

Hoshino et al. teaches a direction indicating device (Fig. 1) comprising: an orientation direction specifying unit (2) that detects geomagnetism to specify a direction of a vehicle; a display direction determining unit (4) that determines a current display direction in consideration of historical information of the direction of the vehicle specified by the direction specifying unit and a previous display direction (Col 1, line 45-Col 2, line 9, Col 5, lines 6-50 and Col 6, lines 40-67, reference to the columns and lines are added in order to clarify Examiner's reasoning); and a direction providing unit (5) that provides the current display direction determined by the display direction determining unit.

Hoshino et al. teaches the direction indicating device wherein the direction specifying unit repeatedly detects geomagnetism and finds a mean value of the geomagnetism during a sampling period and specifies a directional section to which the mean value of the geomagnetism belongs as the direction of the vehicle (Fig. 10, steps 101-105).

Hoshino et al. teaches the direction indicating device wherein when the current direction of the vehicle specified by the direction specifying unit agrees with a previous direction of the

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vehicle, the display direction determining unit makes the current display direction agree with the current direction of the vehicle (Col 8, line 50-Col 9, line 48 and Tables 4 and 5).

Hoshino et al. teaches the direction indicating device wherein when the current direction of the vehicle specified by the direction specifying unit agrees with the previous direction of the vehicle, if the latest mean value of geomagnetism is within a margin region provided to prevent chattering at a boundary of the directional sections, the display direction determining unit makes the current display direction agree with the previous display direction, and if the latest mean value of geomagnetism is without the margin region, the display direction determining unit makes the current display direction agree with the current direction of vehicle (Col 8, line 50-Col 9, line 48 and Tables 4 and 5).

Hoshino et al. teaches the direction indicating device wherein when the current direction of the vehicle specified by the direction specifying unit, the previous direction of the vehicle and the second previous direction of the vehicle agree with each other, the display direction determining unit narrows the margin region (Figs. 5-7, Col 8, line 50-Col 9, line 48 and Tables 4 and 5).

Hoshino et al. teaches the direction indicating device wherein when the current direction of the vehicle specified by the direction specifying unit is different from the previous direction of the vehicle, the display direction determining unit returns the margin region to its original size (Col 7, line 51-Col 8, line 14).

Hoshino et al. teaches the direction indicating device wherein when the current direction of the vehicle specified by the direction specifying unit is different from the previous direction of

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the vehicle, the display direction determining unit makes the current display direction agree with the previous display direction (Col 8, line 50-Col 9, line 48 and Tables 4 and 5).

Hoshino et al. teaches the direction indicating device wherein when the current direction of the vehicle is different from the previous direction of the vehicle, the display direction determining unit determines a traveling direction of the vehicle from the current direction of the vehicle, the previous direction of the vehicle, and previous display direction and if the traveling direction is constant, the display direction determining unit updates the current display direction to the traveling direction side of the vehicle by one directional section from the previous display direction (Col 8, line 50-Col 9, line 48 and Tables 4 and 5).

Response to Arguments

3. Applicant's arguments filed October 18, 2004 have been fully considered but they are not persuasive.

Regarding Applicant's arguments that Hoshino does not teach that "the display direction determining unit determines the current display direction based, in part, on 'historical' information of the direction of the vehicle," Examiner disagrees. Examiner points to the following columns and lines in which Hoshino does, in fact, teach that the display is based on "historical" information: Col 1, line 45-Col 2, line 9, and specifically Col 1, lines 52-60, Hoshino states that the means for deriving mean data from the current cycle value and the prior cycle value; Col 4, lines 4-20, the "standard azimuth circle" is based on previous readings and stored in the memory of the microcomputer; Col 5, lines 6-50, Hoshino teaches that the weighted values are based, in part, on the "standard azimuth circle" which is based on previous readings and

stored in the microcomputer; and Col 6, lines 40-67, Hoshino teaches that the final means sensor output are derived and stored in the last or immediately preceding cycle. These examples all state that Hoshino does teach that the display direction determining unit determines the current display direction based, in part, on 'historical' information of the direction of the vehicle.

Also, Examiner notes that the term "historical" is a relative term and that any information measured or recorded prior to an instantaneous measurement can be considered "historical" information.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

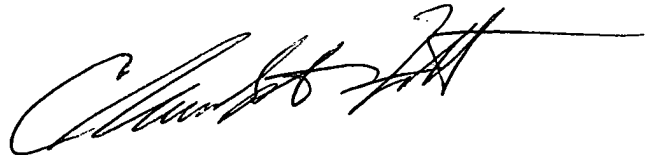
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARC
January 19, 2005

A handwritten signature in black ink, appearing to read 'Christopher Fulton', with a long horizontal line extending to the right.

Christopher Fulton
Primary Examiner
Tech Center 2800